Little River WMA ***Compartment 6 Forest Prescription (Rx)***
June 2015

AREA DESCRIPTION

Little River Wildlife Management Area is located in eastern Grant Parish, along the west side of Little River. Compartment 6 is located in portions of sections 16, 17, 20, and 21 of T8N, R1E and bounded by Sulphur Creek to the north, Little River and private property to the east, Little Creek to the south, and a pipeline with WMA boundary line to the west. This compartment was recently re-proportioned due to additional lands being acquired by LDWF. The added tract consists mostly of managed pine that was previously owned by a forest industry company. The compartment contains 763 acres of mostly planted loblolly pine in the hills and small areas of bottomland hardwood forest along the major creek bottoms. Most of the topography of the compartment begins the terrace uplands with gently to moderately to strongly sloping well drained soil and broad ridges with small drains leading to minor tributaries of Little River.

CURRENT CONDITIONS

The forest structure of compartment 6 is made up of 613 acres (80%) of predominately planted loblolly pine and 150 acres (20%) of Willow Oak and Overcup Oak/Bitter Pecan forest types. Within the pine forest type there are multiple stands of varying age, development and structure where different harvest treatments of clear cuts and thinnings have been applied over diverse time intervals. Of the entire pine area of the compartment 80 acres in separate stands was not treated in the most recent harvest entry cycle. Three stands totaling 34 acres in the northern part of the compartment have a basal area of 170 sq. ft. per acre with an average DBH of 8.9 in. and 374 trees per acre. Approximate pine timber volumes for this area are 3.4 MBF/ac of sawtimber, 33 cords/ac of chip-n-saw and 19 cords/ac of pulpwood. These over stocked stands have 90% - 100% canopy closure and limited (0-10%) midstory and understory component of only shade-tolerant plant species. The remaining pine plantation stands within this compartment exist in an early successional stage (<15 yr old) or have had recent thinning treatments. The recently thinned stands have a basal area range from 60 - 80 sq. ft. per acre and approximately 140 – 180 trees per acre. The thinned pine stands have a moderate midstory and understory vegetative structure of desired species composition and abundance as a result of periodic (3 yr cycle) prescribed burning. As the burning regime continues the midstory develops to a more desirable habitat. The eastern side of the compartment contains 112 acres of a mixed pine/upland hardwood component that appears to have developed in a more natural succession. This area does not show evidence of artificial regeneration planting and continued to mature outside of the previous more intensive pine management harvests. Prior to LDWF ownership none of the pine stands received prescribed fire.

Soils

The pine areas are mostly found in the terrace uplands on Malbis-Glenmora gently sloping and very gently sloping, moderately well drained soils and on Cadeville-Ruston gently sloping to strongly sloping, moderately well drained and well drained soils that have a loamy surface layer and a clayey or loamy subsoil. Most of these soils have moderately low fertility, runoff is medium and the hazard of water erosion is moderate. These soils are well suited to woodland and a high potential for pine trees, site index for loblolly pine ranges from 80-90.

Wildlife

Desirable wildlife habitat is a primary objective of the forest management and structure on the WMA. Management decisions are based with consideration to important wildlife species that inhabit the WMA including white-tailed deer, squirrels, wild turkey, rabbits, and waterfowl. Other game and non-game species on the WMA include resident and migratory birds, small mammals, amphibians and reptiles. These species also have significant consideration. A developed midstory and ground level understory of desirable vegetative component and structure, as well as the forest canopy, are fundamental for the preferred wildlife habitat. A good diversity of forest structure, age and vegetation provide for some of the best wildlife habitat. Feral hogs are also found on the WMA however currently they do not create a major problem.

OBJECTIVES

- Increase midstory and understory structure and diversity where needed
- Improve tree health, vigor, and production
- Promote acceptable growing stock and quality trees in planted stands
- Reduce wildfire hazard and promote desirable vegetative component
- Maintain and promote quality wildlife habitat

Methods [activity/method used to accomplish objectives]

Intermediate Thinning (132 acres)

- Tree removal will be done using an operator selection method, cutting every fourth row of planted trees and thinning in between the cut rows
- Trees to be removed between the cut rows will be selected according to tree vigor, crown position, and form; remove trees in decline and of poor quality
- The amount of thinning removal will be based on a reduction of stocking equal to a basal area of 50-60 sq. ft. per acre

No Treatment Areas (631 acres)

- No management activity for this entry period
- Continue to monitor need for management activity before the next entry cycle of 20 years

Managed Pine (440 acres)

- Maintain a prescribed burning regime

Concerns

- Residual tree logging damage
- Erosion control in susceptible areas
- Road maintenance during logging activities
- Wildfire potential and fuel load

Treatments [how treatment will accomplish objectives]

An intermediate harvest using an improvement thinning will promote health, vigor and growth of the desired growing stock within the stands. While tree heights are good in these stands, tree removals based on spacing will allow for increased diameter growth in the residual trees. Currently the goal is for long-term sawtimber production with quality wildlife habitat. Thinned areas will also provide for more sunlight penetration in order to stimulate desirable vegetation growth underneath and improve wildlife habitat structure and diversity. Use of a continuous prescribed fire regime will further create and maintain desirable vegetation composition for quality wildlife habitat and minimized wildfire threat by reducing fuel loads.

Logging Requirements

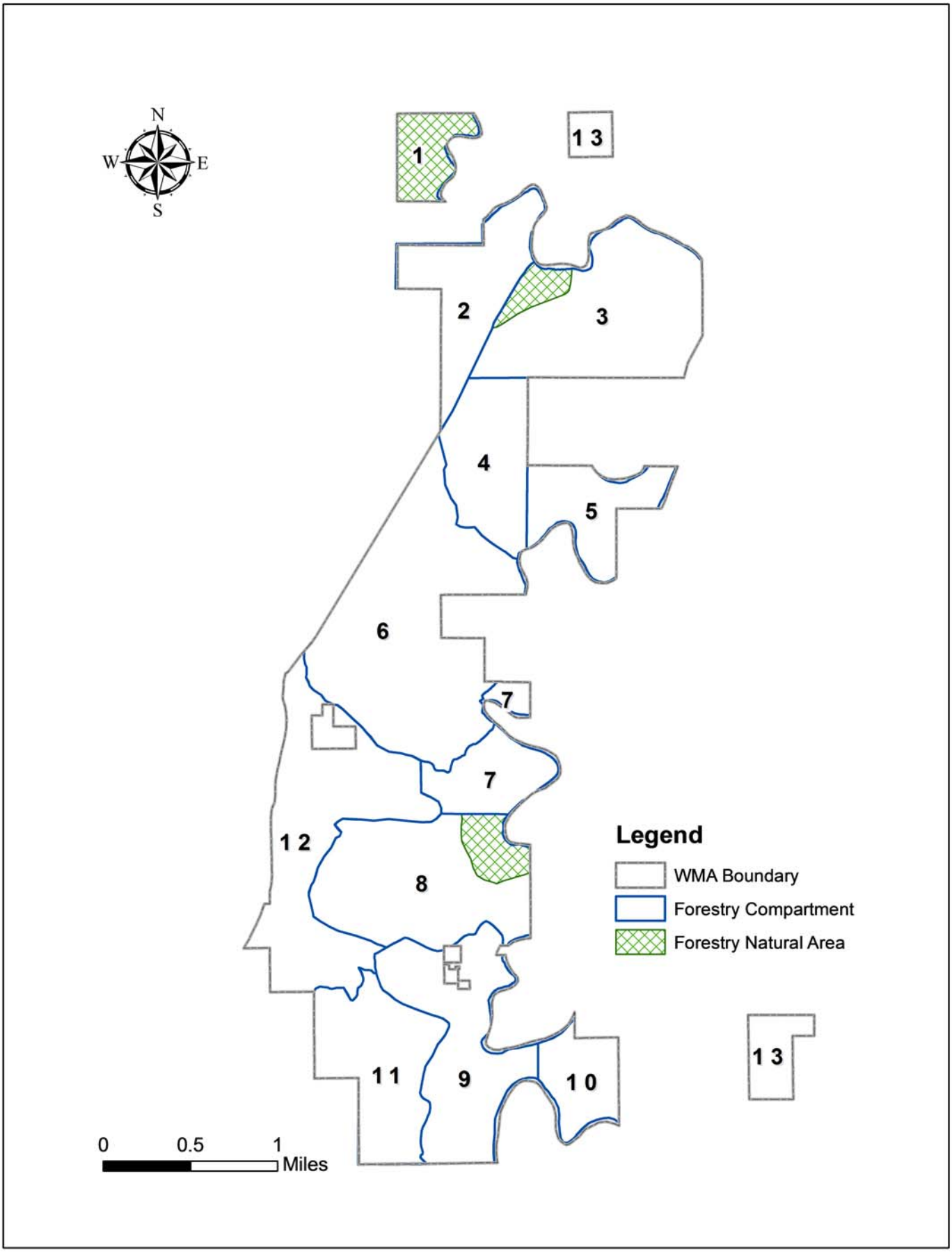
- No harvesting during wet periods
- Follow all BMP guidelines
- Minimize damage to residual trees
- No harvesting operations during deer firearms seasons or spring turkey seasons
- All logging slash near sets should be piled when set is abandoned
- Logging access will be designated by LDWF forester and WMA staff

ADDITIONAL ENTRY REQUIREMENTS

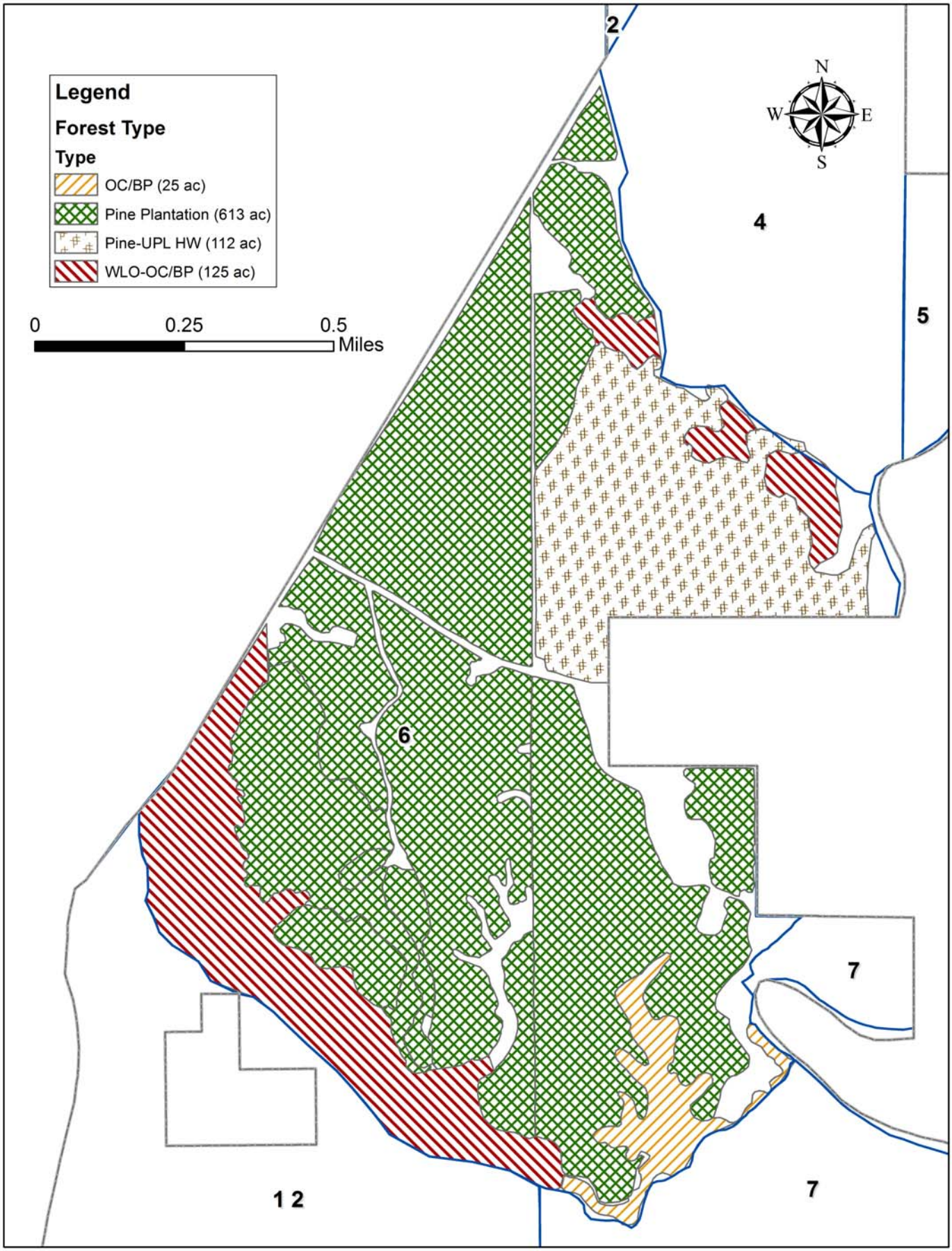
- Monitor areas where no treatment for possible future needs or opportunities before the next entry cycle

[*Attachements- WMA, Stand, Treatment Maps*]

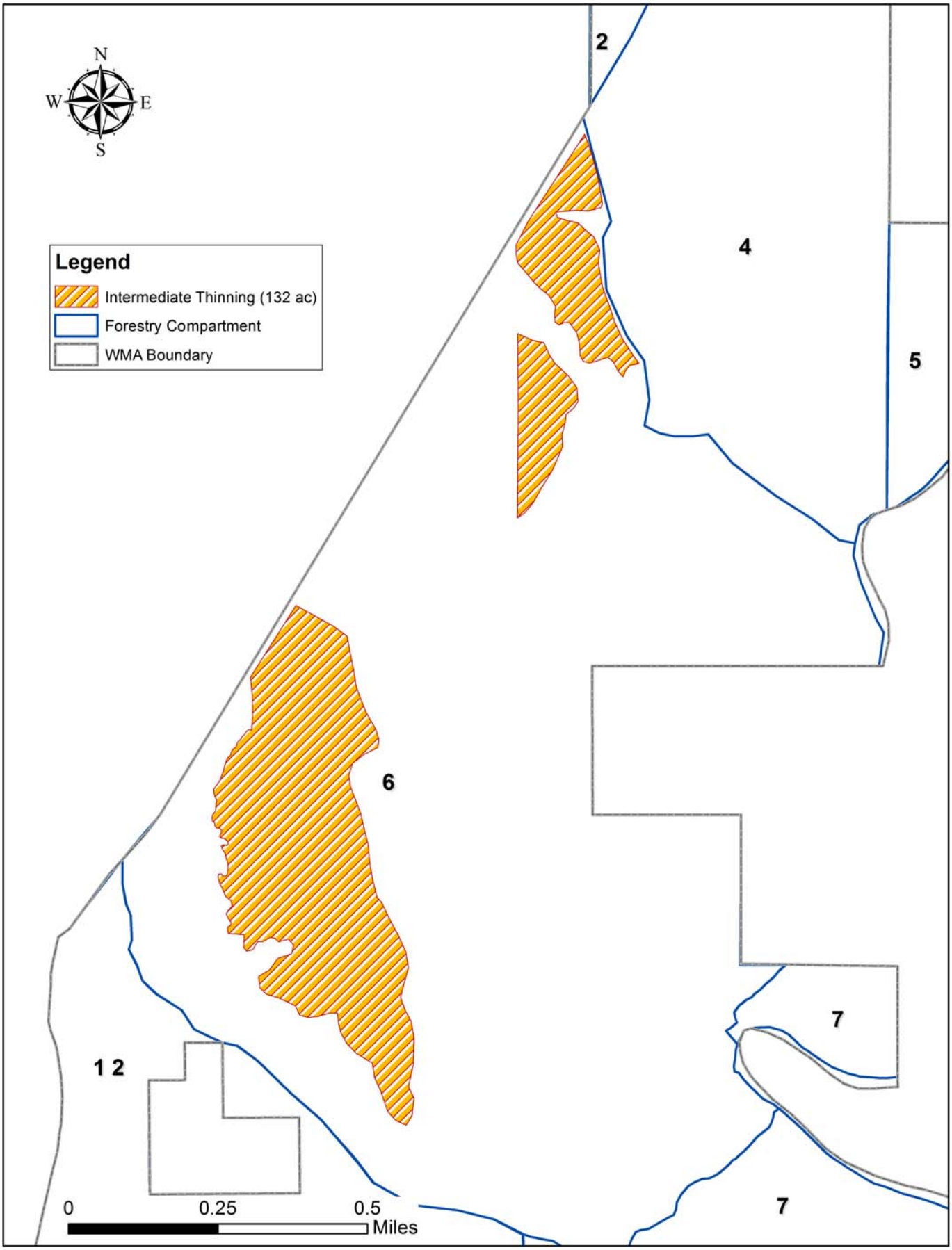
Little River WMA Forestry Compartments and Natural Area



LRWMA Compartment 6 Forest Type



LRWMA Compartment 6 Proposed Treatments



Little River WMA Past Treatments